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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,983	12/31/2001	Tadao Kai	1548.1009/DMP	6981
21171	7590	04/07/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			LAM, HUNG H	
			ART UNIT	PAPER NUMBER
			2622	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/029,983	KAI ET AL.	
	Examiner	Art Unit	
	Hung H. Lam	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/22/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 6-7, 15-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-14 and 17-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendments, filed on 12/22/05, have been entered and made of record. Claims 1-33 are pending. Claims 6-7 and 15-16 are withdrawn from consideration and claims 17-33 are added.

In view of the Applicants' amendment to the title, the objection is hereby withdrawn.

Response to Arguments

2. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1-4, 8-12, 17-18, 21-25, 28, 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palum in view of Keisuke (JP10-062831).

With regarding **claim 1**, Palum discloses an image-capturing device comprising:
an image-capturing element (Fig. 3; CCD 3) that converts light to an electrical signal (it is inherent that CCD is used to convert light to electrical signal);

a photographic lens member (Fig. 3; lens 15) that condenses subject light at the image-capturing element (Col. 6, Ln. 61-62; it is inherent that the photographic lens is used to condenses subject light at the image-capturing element);

a board (Fig. 3; circuit board 12 and frame 7) on which the image-capturing element is mounted (Col. 6, Ln. 63-64); and

an elastic member (Fig. 3; connecting beams 1, 4, 5, 13, 14 and 18) having one end thereof secured to the photographic lens member and another end thereof secured to the board (Col. 6, Ln. 62; Col. 6, Ln. 65-67; Col. 7, Ln. 33-35).

However, Palum fails to teach a position detector having a first member mounted on the photographic lens member and a second member mounted on the board to detect a relative position of the photographic lens member and the board.

In the same field of endeavor, Keisuke teaches a camera with position sensor for correcting blur image in an optical system (abstract). Keisuke further teaches a position sensor comprising light emitting members (Drawing 1; light emitting elements 10) and light receiving members (light receiving elements 11 and positions sensors 9) for receiving light projected from the light emitting members (Detail Description [0018]). In addition, the light receiving members (16) are mounted to a fixed holder (3) and the light emitting members (10) are mounted to a movable lens (see Drawing 1; movable lens 5) in order to detect a relative position of the movable lens (5) and the light receiving members (9 and 11; it is noticed that the light receiving members are attached to the fixed holder 3). In light of the teaching from Keisuke, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum to include the position detection sensor layout of Keisuke in order

to acquire a moving direction of a movable lens with respect to a fixed holder. The modifications provide a means for detecting and preventing blurring image and provide mass production with low cost (Keisuke: Effect of the Invention).

With regarding **claim 2**, Palum in view of Keisuke discloses an image-capturing device, further comprising: a drive device (Palum: Fig. 3; solenoids 16 and 17) that moves the board and the photographic lens member relatively to each other along a direction substantially perpendicular to an optical axis of the photographic lens member (Palum: Col. 6, Ln. 64-65; Col. 6, Ln. 67- Col. 7, Ln. 4).

With regarding **claim 3**, Palum in view of Keisuke discloses an image-capturing device, wherein the drive device (Palum: Fig. 3; solenoids 16 and 17) moves the board and the photographic lens member relatively to each other along a direction substantially perpendicular to the optical axis of the photographic lens member by imparting an electromagnetic force (Palum: Col. 6, Ln. 64-65; Col. 6, Ln. 67- Col. 7, Ln. 4).

With regarding **claim 4**, Palum discloses an image-capturing device, wherein the board is an electric circuit board (Palum: Fig. 3 shows that circuit board 12 and rigid frame 7 are mounted to each other; Col. 6, Ln. 62-63); and

the elastic member achieves electrical conductivity (Palum: Col. 7, Ln. 30-38; it is inherent that beam 1 and 18 comprise electrical conductivity because they are made up of metals) and at least part of the drive device (Palum: solenoids 16 and 17) and the electric circuit board (12) are electrically connected via the elastic member (Palum: see Fig. 3; Col. 7, Ln. 30-38; Palum teaches that the beams are made up of metals such that steel, aluminum; it is inherent

that the beams is capable of electrically connecting to solenoids 16-17 and electric circuit board 12).

With regarding **claim 8**, Palum in view of Keisuke discloses an image-capturing device comprising a drive control which secure to the board (Palum: see Fig. 3 wherein drive control/ solenoids 16-17 are secured to frame 7), a vibration detection sensor secured to the board (Keisuke: Drawing 1; light receiving members 11 are attached to fixed holder 3), which outputs an electrical signal corresponding to an extent of vibration of the image-capturing device (Keisuke: Detail Description; [0018]); and a vibration-proofing control unit that implements drive control on the drive device in conformance to an output from the vibration detection sensor (Palum: Fig. 3; the camera inherently include a control unit in order to drive solenoids 16 and 17; Keisuke: Drawing 1; driving means 8; [0016]).

With regarding **claim 9**, Palum in view of Keisuke discloses an image-capturing device, wherein the vibration-proofing control unit implements drive control on the drive device in conformance to outputs from the vibration detection sensor and the position detection sensor (Palum: see Fig. 3; drive control/ solenoids 16-17; Keisuke: Drawing 1; driving means 8; [0016]).

With regarding **claim 10**, Palum in view of Keisuke discloses an image-capturing device, wherein the elastic member (Palum: Fig. 3; connecting beams 1, 4, 5, 13, 14 and 18) is formed in a narrow, elongated rod shape (Palum: see Fig. 3) and achieves elasticity along a direction

perpendicular to a longitudinal direction thereof (Palum: Col. 6, Ln. 64-65; Col. 6, Ln. 67- Col. 7, Ln. 4; Col. 7, Ln. 31-35).

With regarding **claim 11**, Palum in view of Keisuke discloses an image-capturing device, wherein: the elastic member is a metal wire (Palum: Col. 7, Ln. 30-38).

With regarding **claim 12**, Palum in view of Keisuke discloses an image-capturing device, wherein: the photographic lens member includes a photographic lens portion (Palum: Fig. 3; lens 15) and a holding portion for holding the photographic lens (Palum: Col. 6; Ln. 63; rigid frame 2 is interpreted as a lens holding portion).

With regarding **claim 17**, Palum in view of Keisuke discloses an image-capturing device, wherein: the elastic member (Palum: Fig. 3; connecting beams 1, 4, 5, 13, 14 and 18) regulates the distance between the image-capturing element and the photographic lens member (Palum: Fig. 3 shows that the distance between the CCD 3 and the lens 15 is defined by the length of beams 1, 4, 5, 13, 14 and 18).

With regarding **claim 18**, Palum discloses an image-capturing device comprising:

an image-capturing element (Fig. 3; CCD 3) that converts light to an electrical signal (it is inherent that CCD is used to convert light to electrical signal);

a photographic lens member that includes a photographic lens portion (Fig. 3; lens 15) and a holding portion for holding the photographic lens (Fig. 3; frame 2) and condenses subject

light at the image-capturing element (Col. 6, Ln. 61-62; it is inherent that the photographic lens is used to condenses subject light at the image-capturing element);

a board (Fig. 3; circuit board 12 and frame 7) on which the image-capturing element is mounted (Col. 6, Ln. 63-64);

an elastic member (Fig. 3; connecting beams 1, 4, 5, 13, 14 and 18) having one end thereof secured to the photographic lens member and another end thereof secured to the board (Col. 6, Ln. 62; Col. 6, Ln. 65-67; Col. 7, Ln. 31-35);

a drive device (Fig. 3; solenoids 16 and 17) that moves the board and the photographic lens member relatively to each other along a direction substantially perpendicular to an optical axis of the photographic lens member (Col. 6, Ln. 64-65; Col. 6, Ln. 67- Col. 7, Ln. 4);

a vibration-proofing control unit that implements drive control on the drive device (see Fig. 3; drive control/ solenoids 16-17; the camera inherently include a control unit in order to drive solenoids 16 and 17).

However, Palum fails to teach:

a vibration detection sensor secured to the board, which outputs an electrical signal corresponding to an extent of vibration of the image-capturing device;

a position detection sensor, members of which are secured to the board and the photographing lens member, and which outputs an electrical signal corresponding to a relative position of the board and the photographic lens member; and

a vibration-proofing control unit that implements drive control on the drive device in conformance to outputs from the vibration detection sensor and the position detection sensor.

In the same field of endeavor, Keisuke teaches a camera with position sensor for correcting blur image in an optical system (abstract). Keisuke further teaches a position sensor comprising light emitting members (Drawing 1; light emitting elements 10) and light receiving members (positions sensors 9 and PSD 11; the PSD sensors 11 are also broadly interpreted as the vibration sensors because the moment or vibration of the camera inherently cause the light emitting 10 and PSD 11 to be out of synchronization and thereby providing vibration signals) for receiving light projected from the light emitting members (Detail Description [0018]). In addition, the light receiving members (16) are mounted to a fixed holder (3) and the light emitting members (10) are mounted to a movable lens (see Drawing 1; movable lens 5) in order to detect a relative position of the movable lens (5) and the light receiving members (see Drawing 1; Abstract; Detail Description [0017-0020]; a vibration-proofing control unit must be included in the system in to drive the driving means 8 to prevent blurring image). In light of the teaching from Keisuke, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum to include the position detection sensor layout of Keisuke in order to acquire a moving direction of a movable lens with respect to a fixed holder. The modifications provide a means for detecting and preventing blurring image and provide mass production with low cost (Keisuke: Effect of the Invention).

With regarding **claim 21**, Palum discloses a camera comprising:
an image-capturing element that converts light to an electrical signal (Fig. 3; CCD 3; it is inherent that CCD is used to convert light to electrical signal);

a photographic lens member (Fig. 3; lens 15) that condenses subject light at the image-capturing element (Col. 6, Ln. 61-62; it is inherent that the photographic lens is used to condenses subject light at the image-capturing element)

a board (Fig. 3; circuit board 12 and frame 7) on which the image-capturing element is mounted (Col. 6, Ln. 63-64); and

an elastic member (Fig. 3; connecting beams 1, 4, 5, 13, 14 and 18) having one end thereof secured to the photographic lens member and another end thereof secured to the board (Col. 6, Ln. 62; Col. 6, Ln. 65-67).

However, Palum fails to disclose a position detector having a first member mounted on the photographic lens member element and a second member mounted on the board to detect a relative position of the photographic lens member and the board.

In the same field of endeavor, Keisuke teaches a camera with position sensor for correcting blur image in an optical system (abstract). Keisuke further teaches a position sensor comprising light emitting members (Drawing 1; light emitting elements 10) and light receiving members (light receiving elements 11 and positions sensors 9) for receiving light projected from the light emitting members (Detail Description [0018]). In addition, the light receiving members (16) are mounted to a fixed holder (3) and the light emitting members (10) are mounted to a movable lens (see Drawing 1; movable lens 5) in order to detect a relative position of the movable lens (5) and the light receiving members (9 and 11; it is noticed that the light receiving members are attached to the fixed holder 3). In light of the teaching from Keisuke, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum to include the position detection sensor layout of Keisuke in order

to acquire a moving direction of a movable lens with respect to a fixed holder. The modifications provide a means for detecting and preventing blurring image and provide mass production with low cost (Keisuke: Effect of the Invention).

With regarding **claim 22**, the claim contains the same limitations as claimed in claim 2. Therefore, claim 22 is analyzed and rejected as discussed in claim 2.

With regarding **claim 23**, the claim contains the same limitations as claimed in claim 3. Therefore, claim 23 is analyzed and rejected as discussed in claim 3.

With regarding **claim 24**, Palum in view of Keisuke discloses a camera according to claim 23, further comprising a vibration detection sensor secured to the board (Keisuke: Drawing 1 wherein light receiving members 11 are attached to fixed holder 3), which outputs an electrical signal corresponding to an extent of vibration of the image-capturing device (abstract; Detail Description [0018]; the light receiving members PSD 11 and the position sensors 9 inherently output electrical signal corresponding to a movement); and

a vibration-proofing control unit that implements drive control on the drive device in conformance to an output from the vibration detection sensor (Palum: see Fig. 3; drive control/solenoids 16-17; Keisuke: Drawing 1; driving means 8; [0016-0021]; receiving members 11 are broadly interpreted as vibration detection sensors).

With regarding **claim 25**, Palum in view of Keisuke discloses a camera according to claim 24, wherein the vibration-proofing control unit implements drive control on the drive device in conformance to outputs from the vibration detection sensor and the position detection sensor (Keisuke: Drawing 1; driving means 8; position sensors 9; [0016-0021]; receiving members 11 are broadly interpreted as vibration detection sensors).

With regarding **claim 28**, the claim is a method claim of the apparatus claim 1. Therefore, claim 28 is analyzed and rejected as discussed in claim 1.

With regarding **claim 31**, the claim contains the same limitations as claimed in claim 11. Therefore, claim 31 is analyzed and rejected as discussed in claim 11.

With regarding **claim 32**, the claim contains the same limitations as claimed in claim 2. Therefore, claim 32 is analyzed and rejected as discussed in claim 2.

With regarding **claim 33**, the claim contains the same limitations as claimed in claim 3. Therefore, claim 33 is analyzed and rejected as discussed in claim 3.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palum in view of Keisuke and further in view of Nobuhiro (JP07-248522).

With regarding **claim 5**, Palum in view of Keisuke discloses an image-capturing device, wherein: the drive device (Palum: Fig. 3; solenoids 16-17) comprises an electromagnet that

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moves as part of the photographic lens member (Palum: Col. 6, Ln. 67 – Col. 7, Ln. 4; Palum teaches that the activation of solenoids 16 and 17 which are mounted to frame 7 and board 12, cause a displacement of rigid frame 2/ holder of lens 15 in x-y direction). However, Palum in view of Keisuke fails to teach a permanent magnet that is secured to the board.

In the same field of endeavor, Nobuhiro teaches a camera using magnetic force for anti-vibration (Abstract; Purpose). Nobuhiro further teaches a configuration of anti vibration wherein electromagnet and plastic permanent magnet are utilized in order to reduce the manufacturing cost (Detail Description, [0021]; see Description of Drawing; labels for permanent magnet and electromagnet of drawing 5 and 7 are identical). In light of the teaching from Nobuhiro, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum and Keisuke by having a plastic permanent magnet of Nobuhiro secures to the board in order to provide an anti-vibration configuration which reduces manufacturing cost (Nobuhiro; Detail Description, [0021]).

6. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palum in view of Keisuke and further in view of Chigira (US-5,831,671).

With regarding **claim 13**, Palum in view of Keisuke discloses an image-capturing device, wherein: the photographic lens and the holding portion are formed as an integrated unit (Palum: see lens 15 and rigid frame 2 in Fig. 3; Col. 6, Ln. 63-64). However, Palum and Keisuke fail to explicitly teach forming an integrated unit through resin molding.

In the same field of endeavor, Chigira teaches an image blurring prevention apparatus wherein the first and second holding lens barrel are formed by molding such that a polycarbonate resin (Fig. 2; holding lens barrel 1e and 1k; it is noticed that polycarbonate resin is commonly known in the art for excellent sliding properties and providing good appearance to its molded article without impairing the mechanical strength and heat resistance). In light of the teaching from Chigira, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum and Keisuke by having the photographic lens and the holding portion form an integrated unit through polycarbonate resin molding as taught by Chigira in order to provide an integrated lens and lens holder unit with good appearance, mechanical strength and heat resistance.

With regarding **claim 14**, Palum in view of Keisuke discloses an image-capturing device, wherein: the photographic lens member and the elastic member are formed as an integrated unit (Palum: Fig. 3; photographic lens member is interpreted as frame 2 which is integrated with a plurality of beams 1,4,5, 13, 14 and 18; Col. 6, Ln. 66-Col. 7, Ln. 4). However, Palum and Keisuke fail to explicitly teach forming an integrated unit through resin molding.

In the same field of endeavor, Chigira teaches an image blurring prevention apparatus wherein the first and second holding lens barrel are formed by molding such that a polycarbonate resin (Fig. 2; holding lens barrel 1e and 1k; it is noticed that polycarbonate resin is commonly known in the art for excellent sliding properties and providing good appearance to its molded article without impairing the mechanical strength and heat resistance). In light of the teaching from Chigira, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum and Keisuke by having the photographic lens

member and the beam form an integrated unit through polycarbonate resin molding in order to provide an integrated unit with good appearance, mechanical strength and heat resistance.

7. Claims 19, 26 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palum in view of Keisuke and further in view of Mizumaki (US-6,006,041).

With regarding **claims 19**, Palum in view of Keisuke fails to disclose an image-capturing device according to claim 1 , wherein the first member is a gradation chart and the second member is a photo-reflector.

In the same field of endeavor, Mizumaki teaches a camera system having a photo reflector for optically detecting vibration displacements of a vibrator (Col. 10, Ln. 54-5; a gradation chart is broadly interpreted as a vibrating target-object which are detected by the photo-reflector). In light of the teaching from Mizumaki, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum and Keisuke by including a photo-reflector of Mizumaki in order to optically detect the vibration displacement of a target lens. The modifications thus simplify the vibration detection method by photographing and reflecting light source to a vibration target by the same device.

With regarding **claim 26**, the claim contains the same limitations as claimed in claim 19. Therefore, claim 26 is analyzed and rejected as discussed in claim 19.

With regarding **claim 29**, the claim contains the same limitations as claimed in claim 19. Therefore, claim 29 is analyzed and rejected as discussed in claim 19.

8. Claims 20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palum in view of Keisuke, in view of Mizumaki and further in view of Konno (US-5,852,749).

With regarding **claims 20**, Palum in view of Keisuke and in view of Mizumaki discloses an image-capturing device, wherein the first member is a LED (Keisuke: Drawing 1; see the light transmitting members 10) and the second member is a PSD (Keisuke: Detail Description [0018]).

However, Palum in view of Keisuke and Mizumaki fails to explicitly discloses that the first member is a slit and a LED.

In the same field of endeavor, Konno teaches a camera with a vibration reduction device comprising a plurality of LEDs, slits and PSDs (Fig. 2; LEDs 22, 23, slit 6b-6c and PSDs 21-23; Col. 3, Ln. 47-58; Col. 4, Ln. 48-53; slits 6b-6c and LEDs 22-23 are formed on a lens frame 6 and are interpreted as the first member of the vibration detection device). In addition, Konno teaches that the slits (6b-6c) permit light emitted by the plurality of LEDs (22 and 23) to reach other PSDs (Col. 4, Ln. 48-63). In light of the teaching from Konno, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum, Keisuke and Mizumaki by forming a plurality of slits on the lens frame as claimed by Konno in order to permit light emitted by a plurality of LEDs to pass through (Col. 4, Ln. 48-63).

With regarding **claim 27**, the claim contains the same limitations as claimed in claim 20. Therefore, claim 27 is analyzed and rejected as discussed in claim 20.

9. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Palum in view of Keisuke and further in view of Konno (US-5,852,749).

With regarding ³⁰claim ~~29~~, Palum in view of Keisuke discloses an image-capturing device, wherein the first member is a LED (Keisuke: Drawing 1; see the light transmitting members 10) and the second member is a PSD (Keisuke: Detail Description [0018]).

However, Palum in view of Keisuke fails to explicitly disclose that the first member is a slit and a LED.

In the same field of endeavor, Konno teaches a camera with a vibration reduction device comprising a plurality of LEDs, slits and PSDs (Fig. 2; LEDs 22, 23, slit 6b-6c and PSDs 21-23; Col. 3, Ln. 47-58; Col. 4, Ln. 48-53; slits 6b-6c and LEDs 22-23 are formed on a lens frame 6 and are interpreted as the first member of the vibration detection device). In addition, Konno teaches that the slits (6b-6c) permit light emitted by the plurality of LEDs (22 and 23) to reach other PSDs (Col. 4, Ln. 48-63). In light of the teaching from Konno, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Palum and Keisuke by forming a plurality of slits on the lens frame as claimed by Konno in order to permit light emitted by a plurality of LEDs to pass through (Col. 4, Ln. 48-63).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

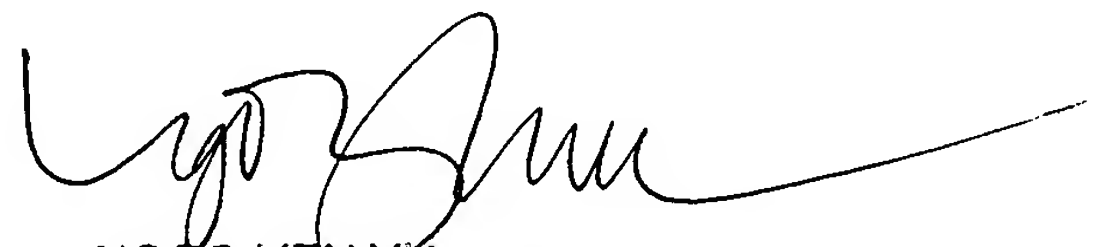
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NGOC YEN VU can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HL
03/29/06



NGOC-YEN VU
SUPERVISORY PATENT EXAMINER